

Special Notice (SN) DARPA-SN-14-28: Collaborative Operations in Denied Environment
(CODE) Proposers' Day
DATE: April 11, 2014
Email: DARPA-SN-14-28@darpa.mil

CODE PROPOSERS' DAY:

The Defense Advanced Research Projects Agency (DARPA) Tactical Technology Office (TTO) is sponsoring a Proposers' Day to provide information to potential proposers on the objectives of the CODE program in advance of a planned Broad Agency Announcement (BAA). The Proposers' Day will be held on **Friday, April 11, 2014 at 675 N Randolph Street, Arlington, VA from 9:00AM to 4:00PM**. Advance registration is required.

The Proposers' Day will be conducted in two separate sessions. The morning session will be unclassified, but ITAR restricted, and present the program overview, while the afternoon session will be classified and cover the specific capabilities that are being sought. In parallel, interested parties are invited to present posters that provide information on relevant research in order to initiate potential teaming discussions.

PROGRAM OBJECTIVE AND DESCRIPTION:

The objective of the CODE program is to expand the mission capabilities of existing Unmanned Aircraft (UA) through increased autonomy and inter-platform collaboration. Over the last 25 years, UA have proven to be very valuable to performing a wide range of missions from Intelligence, Surveillance, and Reconnaissance (ISR) to tactical strike, and the U.S. Armed Forces have invested heavily in a broad range of systems. However, most of the current systems are not well matched to the needs of future conflicts, which DARPA anticipates being much less permissive, very dynamic, and characterized by a higher level of threats, contested electromagnetic spectrum, and re-locatable targets.

Collaborative autonomy has the potential to significantly increase the capabilities of legacy assets as well as to reduce the cost of future systems by composing heterogeneous teams of UA that can leverage the capabilities of each asset without having to duplicate or integrate capabilities into a single platform. Using collaboration algorithms, UA can provide services to each other, such as:

- geo-locating targets with long distance sensors and guiding less capable systems within their sensor range,
- providing multi-modal sensors and diverse observation angles to improve target identification,
- transmitting critical information through the network,
- providing navigational aid to disadvantaged assets, or
- protecting each other by overwhelming defenses and other stratagems.

The top level goals of the CODE program are to develop and demonstrate the value of collaborative autonomy in a tactical context; rapidly transition the capability to the warfighter; develop an enduring framework to expand the range of missions, platforms, and capabilities that can leverage collaborative autonomy; and enable all members of the rich community of researchers to contribute to current and future capabilities.

DARPA has identified four critical technology areas that will be the focus of this program:

- 1) Autonomy at the Single Vehicle Level, including autonomous management (both under routine and abnormal conditions) of platform subsystems, mission equipment, and flight trajectories.
- 2) Human-System Interface, enabling a single mission commander to maintain situational awareness, dynamically define mission objectives, constraints, and operational context; monitor progress; and provide critical inputs as needed for multiple platforms simultaneously
- 3) Team-Level Autonomy, including developing and maintaining a common representation of the environment (world model) to enable the definition of a collaborative action plan that leverages the strength of each team member.
- 4) Open Architecture, enabling tactically relevant collaboration between the platforms and maintaining the mission commander's situational awareness and control authority in a challenging communication environment. The architecture should provide a flexible environment to leverage the large pool of performers so they can meaningfully contribute to the program objectives and future developments.

REGISTRATION INFORMATION:

Proposers' Day will be held on at 675 N. Randolph Street, Arlington, VA on Friday, April 11, 2014 from 9:00am to 4:00pm Eastern Time. Check-in begins at 8:00am.

Proposers' Day will include information that is ITAR restricted; therefore, attendance is limited to individuals who are U.S. Citizens or U.S. Permanent Residents (Green Card holders), representing U.S. companies only. The afternoon session will be classified at the Secret level and will require security clearance transmittal to DARPA. For collateral-level visits, please fax your clearance/visit request to DARPA at (703) 528-3655 or send it via e-mail to: VCC@darpa.mil. Via JPAS, the requesting Facility Security Officer may send a visit request using the SMO Code: DDAAUS4. The Technical POC will be Mr. JC Ledé and the Security POC is Mr. David Pamintuan. The purpose is to attend the CODE Proposers' Day (DARPA-SN-14-28).

Upon entry to the event, all attendees will be required to present proof of U.S. Citizenship or permanent resident status (for Green Card holders). Acceptable proof includes either an original, valid passport (copies will not be accepted) or a certified copy of birth or naturalization certificate AND a federal or state-issued ID card with a photo. Additionally, U.S. Permanent Residents are required to submit a DARPA Form 60 "U.S. Permanent Resident and Foreign National Visit Request" (the form can be found

at: <http://www.darpa.mil/WorkArea/DownloadAsset.aspx?id=2147486280>). The completed DARPA Form 60 must be e-mailed to SIDInternationalSecurity@darpa.mil or faxed to: David Pamintuan, DARPA/TTO-PSR, fax 703-528-3655 with 'CODE ID' in the subject line, no later than the registration close date without exception. Due to space limitations of the conference facility, attendance will be limited to the first 150 registrants, and no more than 2 representatives per organization.

The Government plans to entertain one-on-one discussions with potential offerors on the following Monday, April 14. These sessions will last up to 30 minutes via teleconference or face to face, and teleconference logistics and location will be provided with reservation confirmations. Parties interested in reserving a one-on-one discussion slot should indicate so by following the registration page directions. Availability is limited, and will be assigned on a first-come, first-served basis. Participants must register for the Proposers' Day through the registration website:

<https://www.schafertmd.com/darpa/tto/code/>

PLEASE NOTE: REGISTRATION CLOSING ON Friday, April 4th at 3:00 PM EDT. Visit requests, security clearances, and other applicable documents as described above should also be sent to DARPA by this time.

Attendees may socialize any organizational technology that may be applicable to CODE Proposers' Day during the networking session at the end of the Government briefings by displaying easel posters with handouts if desired. All materials submitted for presentation and handout must be unclassified and approved in advance by the organization that funded the research. Also, an electronic copy of materials to be presented must be sent to DARPA-SN-14-28@darpa.mil by April 4, 2014 for review. It is the presenters' responsibility to produce copies and to ensure that the material has been approved for public release by the organization that funded the research. DARPA will not post any attendee information presented at Proposers' Day on the Agency website. If you would like to submit classified materials, please send an unclassified e-mail to DARPA-SN-14-28@darpa.mil for submission instructions.

To maximize the pool of innovative proposal concepts, DARPA strongly encourages participation in these events and subsequent solicitations by non-traditional performers, including small businesses, academic and research institutions, and first-time government contractors. A list of registrant contact information will be made available to attendees following the Proposers' Day to facilitate interchange among interested proposers. **If you would NOT like to be included on this list, please notify us when registering.**

Attendance at the CODE Proposers' Day is voluntary and is not required to propose to subsequent BAAs (if any) on this topic. The Proposers' Day does not constitute a formal solicitation for proposals or abstracts. This announcement is issued solely for information and program planning purposes and is not a Request for Information (RFI).

Since this is not an RFI, no submissions against this notice will be accepted by the Government. DARPA will not provide reimbursement for costs incurred to participate in this Proposers' Day.

The Program Manager for this effort is:

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DARPA/TTO

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